

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
12 August 2004 (12.08.2004)

PCT

(10) International Publication Number  
**WO 2004/068143 A1**

(51) International Patent Classification<sup>7</sup>: **G01N 33/68**,  
A61K 45/00, 38/08, 38/10, 38/17, A61P 17/02, 35/00,  
27/12

of East Anglia, Norwich NR4 7TJ (GB). **WICKS, Stephen, John** [GB/GB]; School of Biological Sciences, University of East Anglia, Norwich NR4 7TJ (GB).

(21) International Application Number:  
PCT/GB2004/000395

(74) Agent: **LIPSCOMBE, Martin, John**; Keith W Nash & Co, 90-92 Regent Street, Cambridge CB2 1DP (GB).

(22) International Filing Date: 30 January 2004 (30.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0302315.7 1 February 2003 (01.02.2003) GB

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **UNIVERSITY OF EAST ANGLIA** [GB/GB]; Norwich NR4 7TJ (GB).

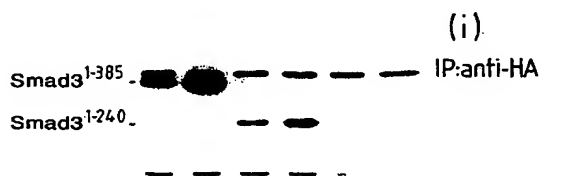
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **CHANTRY, Andrew** [GB/GB]; School of Biological Sciences, University

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: USE OF SUBSTANCES INHIBITING THE ASSOCIATION OF SMAD PROTEIN WITH UBIQUITIN C-TERMINAL HYDROLASE FOR ALTERING CELLULAR RESPONSES TO TGF-BETA OR BMP



Smad3<sup>1-144</sup>



Smad3<sup>1-144</sup>



HA-Smad3 (1-385)	+	+	-	-	-	-
HA-Smad3 (1-240)	-	-	+	+	-	-
HA-Smad3 (1-144)	-	-	-	-	+	+
UCH37 FLAG	+	-	+	-	-	-
UCH37 ΔC FLAG	-	+	-	+	-	+

(57) Abstract: Disclosed is a pharmaceutical composition for altering cellular responses to TGFβs and/or BMPs; the composition comprising a molecule which prevents, inhibits or reduces the association of a Smad protein with a UCH, in admixture with a physiologically acceptable carrier, excipient or diluent.



Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*